fish skeletons presented to the Museum by the Director, Steindachner.

The highest story of all, the so-called "Second Floor," presents the same distribution of halls and adjoining rooms as do the *Hochparterre* and the "First Floor." The halls distinguished by the numbers from XLI. to LIX. correspond with the Halls I. to XIX. in our sketch.

The spaces on this floor will, as a rule, not be admissible to the public at large, but will be mostly appropriated as workrooms for the officials of the establishment and for experts to whom the use of the collections and other appliances is to be granted on the most favourable conditions possible.

One half of the second floor, comprising the halls from XLI. to XLIX. inclusive, will be set apart for the zoological division. Here the main collections of the invertebrate animals, only a small part of which can be exhibited on the first floor, will be kept in closed cases. Two halls will accommodate the skeletons of the Mammalia and birds, and one hall will lend itself as a library to the accommodation of periodical literature of general interest, while all publications of special departments will be distributed in the workrooms of the respective divisions.

Hall L. is destined for the collection, already very rich, of human skulls and skeletons.

Halls LI. to LIV., inclusive, are devoted to the botanical division. On the death, last summer, of the custodian of this department, Dr. Reichardt, the charge of it was committed to Dr. G. Beck, with whom is associated as assistant, Dr. Szyszylovic. The first three halls contain the herbarium, very valuable for the numerous original types it possesses; the last comprises the collections of woods, fruits, &c.

Halls LV. and LVI. form the reserve rooms for the geological division, in which the particularly rich chief collection of Tertiary Conchylia and the more subordinate collections of Foraminifera and Bryozoa are to be bestowed.

The Halls LVII. to LXIX., finally, are to be appropriated as reserve rooms for the ethnographical collection, which is growing at an extraordinarily rapid rate.

Be a few words still allowed me respecting the state of the works yet needing to be completed before our Museum can be opened for public entertainment and instruction.

The building of the palace and its decoration in all exterior parts is finished. All the halls, workrooms, and dwelling-rooms are ready for use and in large part already occupied. The cases and stand apparatus destined to receive the collections are also in large part already set up or in process of being set up. Building operations of any serious extent yet remaining to be done are confined to the interior, and more particularly the central axis of the building in which the staircase stands. This work, however, is of such compass that, according to the declaration of the superintendent of the building, it will yet claim nearly two years before it is ended. So far as the collections themselves are concerned, they are all, with the exception of the large Mammalia, already transferred into the new building, and a beginning has also been made in arranging and disposing them. With the final completion of the building, this latter work will likewise be completed, and then will this new establishment for scientific labour and for the instruction of the public be at once opened. FRANZ VON HAUER

Vienna

NOTES

THE Council of the Royal Meteorological Society have arranged to hold at 25, Great George Street, S.W., on the evenings of March 16 and 17 next, an exhibition of barometers. The Exhibition Committee invite co-operation, as they are anxious to obtain as large a collection as possible of such instruments. A list of some of the principal patterns of which the Committee desire specimens has been prepared, and may be had by applying to Mr. William Marriott, Assistant Secretary. The Committee will also be glad to show any new meteorological apparatus invented or first constructed since last March, as well as photographs and drawings possessing meteorological interest not previously exhibited.

THE appointment of Sir Lyon Playfair to be Vice-President of the Council will be welcomed by all friends of education and of science. Sir Lyon's recent utterances on the duty of the State as to the promotion of scientific research must be fresh in the memories of our readers; and it will be interesting to watch to what extent the Minister's practice accords with his creed.

THE inauguration of the statue of Claude Bernard by Guillaume took place on Sunday last, at the entrance of the Collège de France. Speeches were delivered by MM. Paul Bert, Berthelot, Chauveau, Dastre, Fremy, and Renan. The audience was large, in spite of the very cold weather. The statue of Bernard stands near a table on which has been placed a dog undergoing dissection. The animal is partly concealed by a large bronze sheet on which are written these words—"Glycogenie Diabete—Nerfs vaso-moteurs—Substances toniques—Liquides digestifs," which may be considered as giving a summary of the extent of Claude Bernard's disquisitions and discoveries.

THE death is announced of Dr. Arnold Konstantin Peter Franz von Lasaulx, Professor of Mineralogy and Geology at Bonn University. He died at Bonn on January 25, aged forty-six years.

AT the last sitting of the Paris Academy of Sciences M. Paul Bert took leave of his colleagues. He said that his academical qualifications were the principal cause of his appointment to his mission. He will be brought into contact with the *savants* of the East, and he is hoping to convert them to the principles of the West merely by persuasion and without being obliged to resort to coercion.

THE Académie des Sciences, in awarding the Prix Montyon to M. Girard, the director of the laboratory opened in Paris seven years ago for testing the quality of the food and drink sold by the tradesmen of the capital, has issued a report which shows how much good this laboratory has done. The laboratory was first opened in 1878, and specimens of wine, beer, cider, milk, chocolate, coffee, tea, &c., are examined daily; so, too, are the colours used for toys, sweetmeats, and liqueurs, as well as pork suspected of containing trichinosis, and tinned meats. Some of these samples are brought by the public, and the analysis is made free of cost when all that is asked is whether they are free from adulteration. If, however, an analysis of their proportionate composition is required, the laboaatory makes a small charge, and this brings in an annual income of about 1200*l.* a year. A larger number of samples are, however, brought in by the twenty inspectors who are attached to the laboratory, and whose duty it is to visit the different taverns and grocers' shops, and examine the articles offered for sale. These inspectors are provided with a microscope and with acids, which enable them to test a good deal of merchandise on the spot, and they only bring back to the laboratory specimens of the articles which they have reason to suspect are adulterated. There are twenty-five chemists attached to the laboratory, each of whom has his own special department, one taking milk, another wine, and so on. Each sample is divided into two parts, one of which is kept as evidence in case it should be found to be adulterated. The municipal laboratory analyses about 25,000 samples per annum at a cost of about 8000*l.*

THE total rainfall at the Ben Nevis Observatory during 1885 was 146·50 inches, the largest monthly fall being 24·33 inches in

December, and the least 4·97 inches. On December 12 there fell 5·34 inches, and on the following day 3·52 inches, or 8·86 inches on these two days.

AMONGST the objects which will be exhibited in the Ceylon Section of the forthcoming Indian and Colonial Exhibition will be a large ethnological collection from the Maldive Islands.

THE discovery of a portion of the vertebral column of a specimen of *Mosasaurus gracilis*, Ow., is announced to have been made in the hard white limestone or chalk of Whitewell, near Belfast.

DR. ARCHIBALD GEIKIE, Director-General of the Geological Survey, has now completed his "Class-Book of Geology," and the work will be published during next week by Messrs. Macmillan and Co. This volume completes the series of educational works on physical geography and geology projected by Dr. Geikie.

IT is interesting to note that the trout and salmon reared in February last year by the National Fish Culture Association have achieved the growth of 6½ inches, which is remarkable considering they have been subjected to an artificial existence. The whitefish hatched in 1885 have reached the size of 5 inches.

THE iris of the eye of Italians is most commonly chestnut; according to M. Mantegazza, the proportion of such is 64 per cent., the black eyes number 22 per cent., the blue 11, and the gray 3. Piedmont and Lombardy have the largest proportion of gray eyes; Venetia, of blue. In general the chestnut colour of hair amounts to 71 per cent.; then comes the black hair, 26 per cent.; then the blond, 3 per cent. (though in Venetia it is 8). Black hair is rare in Venetia. More than three-fourths of the Italians have abundant hair. Southern Italy excels Northern in this respect; in Tuscany the poor heads of hair preponderate (58 against 42 per cent.). As to beards, the colour does not always coincide with that of the locks. While chestnut preponderates, this preponderance is less marked; and one sometimes finds chestnut locks with blonde, and more often brown, beards. Bushy beards with abundant locks are most common in the South of Italy. In two-thirds of Italy, the natives wear the beard short or are clean shaven. This practice dominates especially in Tuscany (82 per cent.); the Sardinians have most long beards (50 per cent.). Red hair in Italy has been a subject of discussion among anthropologists; some think red-haired persons are remnants of a race almost extinct, and which extended to the banks of the Rhine and into England; others think red hair a mere physiological accident, from which no conclusion can be drawn. In Italy throughout one finds a few cases of red hair. In one commune, Sant' Agata di Puglia, red hair is predominant. No explanation has been given of the fact. Baldness is most common in Tuscany. In Italy generally, of 10,000 young men examined for military service 20 were rejected for premature baldness, and 52 for diseases of the scalp.

MR. CHARLES T. NEWTON, C.B., will on Tuesday next (February 16) give the first of three lectures at the Royal Institution on "The Unexhibited Portion of the Greek and Roman Sculptures in the British Museum" (illustrated by drawings and casts).

IT has been recently pointed out that the number of births in France per 10,000 inhabitants has diminished more than one-third in a century. It was 380 in 1771-80, 289 in 1831-40, and only 241 in 1871-80.

SEVERAL Continental geologists have been lately engaged in tracing the marks of the Ice Age on the Northern Alpine slopes. According to Dr. Brückner (in *Naturforscher*), the decrease of size in the diluvial ice-streams from west to east, corresponding to a decrease in the glaciers of the present, and due, no doubt, to the lowering of the region eastwards, is a noteworthy feature. Then it is becoming even more clear that there were at least two ice-periods, separated by a long interglacial period. The number of geological profiles containing two moraines (an older and a younger) deposited by glaciers, and separated by a layer which cannot have arisen under the ice, is considerable; in the region indicated nineteen such are known. The separating layer is in some cases loam (from weathering); in others it contains diluvial coal; in others it is formed of river deposits, &c. The position of these profiles shows that the ice-masses must have shrunk to the highest parts of the range after the first ice-period. The climate of that interval was probably much like the present; this is inferred from examination of the interglacial coal of Innsbruck, &c. The second glaciation was not so extensive as the first; for to the north of the moraines of the later glaciers appears a projecting strip, of more or less breadth, of the older moraines. This outer zone of moraine has also some special features in composition. In the interglacial period the rivers cut valleys in the masses deposited by the older glacier-streams; and these were filled again when the later glaciers came. Between the Rhine and the Traun there is evidence of a still earlier period of glaciation. Again, the coincidence of limits of the lake-region in the northern border of the Alps with those of the diluvial glaciers is significant. While some geologists attribute these lake-basins to erosion by glaciers, others think they were preglacial, and only prevented by the glaciers which occupied them in the Ice Age from being filled with earthy matter, &c. Dr. Brückner notes the fact that most of the geologists who have studied the features of the Bavarian lakes, take the former view, while those who have studied the Swiss lakes (where the relations are more complicated) take the latter.

THE London Stereoscopic Company's second annual International Amateur Photographic Exhibition, 1886, will be held at the Art Galleries, 103, New Bond Street, W., from April 15 to May 24.

THERE were (according to Dr. Dujardin-Beaumetz) 19 deaths from hydrophobia in Paris last year--a number higher than in previous years; and yet the number of stray dogs destroyed was also higher (viz. 5060). Of these 19 persons, 15 were males and 4 females. The youngest was a little girl of 5½ years; the oldest, a man of 63. The time of incubation varied from 19 months (in the case of a young man of 26) to 29 days (a child of 11). In only one case was the time of the bite unknown. Excluding that, and the exceptional case of 19 months, an average of about 2 months is arrived at for the time of incubation. As to duration of the disease, the extreme limits were 1 day and 8 days; average 3½ days. In no case were the lower limbs bitten. In 12 cases out of 18, the upper members were bitten, especially the hand (9 times out of 12), the wrist twice; in the 6 other cases it was the face (5 times) and the skull (once) that were attacked. Lastly, in 17 cases of the 18, the bite was that of a dog; in the remaining case, it was that of a cat. It will be noted that these statistics relate only to *deaths* from hydrophobia.

FERMENTATION can be utilised (as was shown by Roberts in 1861) for quantitative determination of sugar in urine. The method has been recently developed by Herr Einhorn (*Virchow's Archiv*), and he claims that the test will indicate one-tenth per cent., or even, if the fermenting liquid be previously boiled ten minutes, one-twentieth per cent. of sugar (the common reduction and polarisation-tests are exact to about 3 per cent.). Herr Einhorn uses three tubes of special shape: one with normal urine having no sugar, another with the urine to be examined, and the third with urine having sugar added to it. The urine, whether containing sugar, or normal, is boiled and diluted with boiled water to the amount of the original volume. Compressed yeast is added to the liquid in the proportion 10 per cent. Acetic acid is of no use for the fermentation, and may be prejudicial.

A SWEDISH naturalist has collected some remarkable statistics of the important part natural history and certain other branches of science have played in the names assumed by the Swedish nobility when elevated to that rank. As regards zoology, five names begin with Lejon (lion), and six with the German equivalent Löwen, Lewen, or Len. Only one name begins with Örn (eagle), but six with the German form, Adler. The mythical animals Grip (griffin) and Drake (dragon) have been appropriated by six and three families respectively. Of other animals and birds of prey, Tiger (tiger) is represented by four families, Ulf (wolf) by three, Björn (bear) by three, Falk (falcon) by three, Geijer (hawk) by two, and Räf (fox) by one. There are, further, two families whose names begin with Oxe (ox), one with Häst (horse), two with Elg (elk), one with Hjort (stag), one with Rålamb (doe), one with Get (goat), one with Svin (swine), one with Bäfver (beaver), one with Dufva (dove), one with Reiher (heron), one with Stork, one with Gädda (pike), three with Rud (carp), one with Ödla (lizard), and one with Brämo (gadfly). Many more names have been taken from trees and plants. Thus, fourteen begin with Lilje (lily) and Ros (rose) respectively, eleven with Lager (laurel), nine with Ceder (cedar), seven with Ek (oak), six with Lind (lime), and so on. If we turn to astronomy, numerous stars form the prefixes of names, but in no case the sun or the moon. Fourteen begin, and eleven end, with Stjerna (star). It is mentioned that the famous name, Oxenstjerna, is a corruption of the German word Stirn (forehead), which is proved by the family escutcheon, and is not derived from the above word.

A CORRESPONDENT gives some interesting particulars to a Norwegian journal of the habits of herring jumping out of the water when frightened. He states that he has observed whole shoals of this fish, in their anxiety to escape when pursued by whales, piled up above the surface of the sea to a height of from three to six feet. On one occasion the fish formed a mass even with the top of the mast of a fishing-boat, viz. about fifteen feet, and had part of the same fallen into the boat it would doubtless have sunk.

THE following are the results of a very elaborate mathematical inquiry which Prof. N. Joukowsky has recently made into the laws of motion of a solid body having hollows filled up with a homogeneous liquid. Various shapes of hollows filled with liquid have been considered, as also the case of a vortex-motion of the liquid having interior friction. Some phenomena of the interior motion of the liquid itself, in the case of the solid body when caused to rotate, were verified by experiments which proved conformable to the theory; they have shown that in a body whose rotation-velocity is decreasing from its surface to its centre (*e.g.* a glass sphere filled with water, and which is brought into motion), the molecules flow from the poles to the equator, and *vice versâ* where, the rotation being suddenly stopped, the speed of rotation is on the decrease from the centre to the circumference. The general conclusion of the inquiry is, that if we have a hollow body filled with a liquid, and this system be brought into motion, its motion will tend to reach a limit characterised by one of the chief axes of inertia of the body taking the direction of the chief momentum of the communicated motion, and the whole system will rotate around this axis as a single body—the speed of rotation being constant, and equal to the quotient obtained from the division of the force applied by the momentum of inertia of the system with regard to this axis. M. Joukowsky asks,—Does it not explain the circumstance that our planets, notwithstanding the variety of their occasional primary velocities, all rotate around their axes of inertia?

IT is stated in Paris that the telegraph now extends to Langson in Tonquin, on the Chinese border. As already mentioned in NATURE, on the Chinese side the telegraph was carried during the recent military operations in Tonquin from Canton to Lungchow, about thirty miles from Langson. Hence, with the exception of this short gap of thirty miles, the telegraph extends in an unbroken line from Saigon in the south of the Indo-Chinese peninsula to Pekin, where five years ago there was no telegraph whatever. The rapidity with which, since 1881, it has spread all over China, and has come into general use, is one of the wonders of modern days.

THE "binding" effect of intense cold and a fierce wind on snow is remarkably illustrated by a photograph, in *Science*, of a large mass of snow formed on one side of a telegraph pole (at the top) near the summit of Mount Washington. Lieut. Schwatka notes this in relation to the building of snow houses by the Eskimo. While the cohesion of snow in our latitudes (and the early Arctic snow) is of a plastic, wet, or "pasty" nature, the snow used in building, packed by high wind and cold, is dry and almost stone-like. Cutting a thin portion gives a shower of fine powder as from loaf-sugar. Blocks of this snow ring like a well-burnt brick, or a bar of suspended steel struck with the hand. Lieut. Schwatka remembers a block rolling down hill 15 or 20 feet, and says, "I doubt if a rolling guitar would have given forth many more confused musical tones than the bumping block as it struck and bounded down the hard stone-like bank of snow." The least quantity of ice in the snow, however, makes it more or less worthless for building. To produce this snow, it may not be necessary that the wind and the low temperature have occurred together, but both must have happened before the Eskimo will use the snow for building.

A STRONG shock of earthquake took place in the Island of Lemnos in the night of January 17-18. There was no subterranean noise.

AN earthquake is reported from Jaska and Samobor (Croatia) on January 23. Two violent shocks were felt at 9.35 a.m. on that day. No considerable damage was done, although many walls show fissures.

AN International Exhibition will be held at Madrid in 1888.

THE Calcutta Correspondent of the *Times* telegraphs, under date the 7th inst., that Mr. Ney Elias, the new British Consul to Kashgar, has made a successful journey down the Upper Oxus, through Shignan and Koshan, to Badakshan. He was everywhere well received.

THE Calcutta *Englishman* states that, shortly after the last cyclone suddenly burst over Madras, the local Government wrote to the Government of India, suggesting that telegraphic communication should be established between Madras and either Sumatra or the Nicobars for the despatch of storm-warnings. The Indian Government, however, considers that the value of meteorological stations in these localities in relation to the Storm Signal Service on the Madras coast is by no means established. Experience has shown that the storms which reach Madras are in most cases formed on the east or the north-east coast of Ceylon, and that therefore telegrams from the opposite side of the bay would give little or no help in forecasting the approach of storms. The Government of India, therefore, suggests that the telegraphic reports from Pondicherry and Negapatam, as well as from Jaffna and Trincomalee in Ceylon, would be more likely to give the required information.

A REMARKABLY strong Artesian spring has been struck, at a depth of 155 feet below the surface, at Alnwick, in a boring which the Local Board are having sunk for the supply of the town. This spring, which was met with in a bed of sandstone, rises to no less than 30 feet above the surface, and is flowing with increasing volume at the rate of 115,000 gallons per diem. The site of this boring is at an elevation of some 200 feet above the level of the town, from which it is about two miles distant

THE additions to the Zoological Society's Gardens during the past week include two Maholi Galagos (*Galago maholi*) from West Africa, presented by Mrs. Max Michaelis; a Macaque Monkey (*Macacus cynomolgus*) from India, presented by Mrs. Corbet; an Indian Otter (*Lutra nair* ♂) from Ceylon, presented by Capt. J. C. Withers; a Ring-tailed Coati (*Nasua rufa* ♂) from South America, presented by Lieut. J. H. N. Theed, R.N.; a Red-bellied Waxbill (*Estrelda rubriventris*) from West Africa, presented by Mrs. T. Johnson; two Alligators (*Alligator mississippiensis*) from the Mississippi, presented by Mr. F. J. Dawe; a Malbrouck Monkey (*Cercopithecus cynosurus* ♀) from West Africa, two —— Lemurs (*Lemur* —— ♂ ♂) from Madagascar, a Common Boa (*Boa constrictor*), an Anaconda (*Eunectes murinus*) from South America, deposited; a Great Kangaroo (*Macropus giganteus*), born in the Gardens.

OUR ASTRONOMICAL COLUMN

THE DOUBLE-STAR 61 CYGNI.—The determination of the orbit of this double-star has hitherto baffled those astronomers who have attempted to deduce it from the numerous measures which have been made. Thus one computer finds the relative motion of the components to be rectilinear, another hyperbolic, and another circular, but in no case have the determinations been altogether satisfactory. Recently, however, Dr. C. W. Peters, of Kiel, has succeeded in obtaining elliptic elements, with a periodic time of 782·6 years and angle of eccentricity = 10°, which appear to represent the great mass of observations which have been made from the earliest times down to 1883, with considerable accuracy. Herr Peters has computed the following ephemeris from his elements:—

Epoch ...	1885·0 ...	1886·0 ...	1887·0 ...	1888·0
Position ...	119° 44′ ...	120° 7′ ...	120° 31′ ...	120° 55′
Distance ...	20″·60 ...	20″·71 ...	20″·81 ...	20″·92

Taking the parallax of 61 Cygni to be 0″·45, it appears from these elements that the combined mass of the system is about one-half of the sun's mass, whilst the mean distance between the components is about 70 times that of the earth from the sun.

THE ZODIACAL LIGHT.—In October 1883 Prof. Arthur Searle presented to the American Academy of Arts and Sciences a very valuable paper on the zodiacal light, in which he had collected and reduced on a uniform system the evening observations of all the principal observers. The principal points then brought out were that in all probability the apparent changes in the latitude of the zodiacal light were due mainly, if not entirely, to the effect of atmospheric absorption, and that the method of observation by drawing outlines must be replaced by careful photometric observations if definite knowledge was to be substituted for the vague information we now possessed as to the "Gegenschein," the "zodiacal bands," &c.; and Prof. Searle concluded with the suggestion that the ordinary meteoric theory would gain greatly in simplicity by the substitution of meteoric dust scattered generally throughout the solar system for the meteoric rings that have been usually imagined. Prof. Searle has continued his investigations in a recent memoir, in which he corrects, for the effect of atmospheric absorption, Jones's observations of what the latter called the "stronger light" at the elongation 60°, whether made in the morning or evening. The result of the inquiry is to confirm the view arrived at previously, that atmospheric absorption largely affects the apparent position of the zodiacal light, and Prof. Searle again lays stress on the need for photometric observations. Prof. Searle concludes that, after correcting for atmospheric absorption, there seems reason to think that the zodical light has had, during the present half-century, a more northern latitude near the longitude 180° than near the longitude 0°. He also shows, from a careful study of the distribution of the stars in the *Durchmusterung*, that "upon the meteoric theory of the zodiacal light it is to be expected that a continuous zodiacal band should be present; but the question of its actual visibility is complicated by the slight maxima of stellar density which are situated along those parts of the ecliptic most readily accessible to observation from stations in the northern hemisphere." An interesting result is obtained from an examination of the elements of the 237 asteroids first discovered, from which it would seem that "the belt of sky occupied by the projections of the orbits of" these asteroids "presents certain peculiarities which correspond to those of the zodiacal light, and suggest the hypothesis that the light may be partly due to minute objects circulating in orbits like those of the smaller planets."

ASTRONOMICAL PHENOMENA FOR THE WEEK 1886 *FEBRUARY* 14-20

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on February 14

Sun rises, 7h. 18m.; souths, 12h. 14m. 23·7s.; sets, 17h. 11m.; decl. on meridian, 12° 56′ S.: Sidereal Time at Sunset, 2h. 50m.

Moon (Full on February 18) rises, 12h. 34m.; souths, 20h. 27m.; sets, 4h. 21m.*; decl. on meridian, 18° 22′ N.

Planet	Rises	Souths	Sets	Decl. on meridian
	h. m.	h. m.	h. m.	° ′
Mercury ...	7 15 ...	11 46 ...	16 17 ...	17 29 S.
Venus ...	6 39 ...	12 29 ...	18 19 ...	2 51 S.
Mars ...	19 27* ...	2 4 ...	8 41 ...	6 32 N.
Jupiter ...	20 44* ...	2 45 ...	8 46 ...	0 37 S.
Saturn ...	12 17 ...	20 28 ...	4 39* ...	22 43 N.

* Indicates that the rising is that of the preceding evening and the setting that of the following morning.

Occultations of Stars by the Moon (visible at Greenwich)

Feb.	Star	Mag.	Disap.	Reap.	Corresponding angles from vertex to right for inverted image
			h. m.	h. m.	° °
14 ...	111 Tauri...	... 5½ ...	1 51 ...	2 34 ...	164 273
14 ...	117 Tauri...	... 6 ...	3 10 ...	3 59 ...	130 297
18 ...	ξ Leonis ...	... 6 ...	2 19 ...	3 21 ...	95 296
19 ...	48 Leonis...	... 6 ...	3 44 ...	4 43 ...	87 301
20 ...	τ Leonis ...	... 5 ...	1 5 ...	2 0 ...	23 293
20 ...	13 Virginis	... 6 ...	21 36 ...	22 23 ...	72 176

Feb.	h.	
18 ...	19 ...	Venus at inferior conjunction with the Sun.
19 ...	4 ...	Mercury in conjunction with and 11° 22′ south of Venus.

Variable-Stars

Star	R.A.	Decl.		
	h. m.	° ′		h. m.
U Cephei	0 52·2 ...	81 16 N. ...	Feb.	16, 21 58 *m*
λ Tauri	3 54·4 ...	12 10 N. ...	,,	14, 22 43 *m*
			,,	18, 21 35 *m*
W Virginis	13 20·2 ...	2 47 S. ...	,,	17, 0 0 *m*
δ Libræ	14 54·9 ...	8 4 S. ...	,,	18, 23 28 *m*
U Coronæ	15 13·6 ...	32 4 N. ...	,,	20, 0 48 *m*
U Ophiuchi... ...	17 10·8 ...	1 20 N. ...	,,	16, 3 9 *m*
			and at intervals of	20 8
β Lyræ	18 45·9 ...	33 14 N. ...	Feb.	14, 14 30 *m*
			,,	17, 7 0 *M*
δ Cephei	22 24·9 ...	57 50 N. ...	,,	14, 21 30 *M*

M signifies maximum; *m* minimum.

CHEMICAL NOTES

WE have already mentioned M. Konovaloff's researches into contact actions, published in the *Journal* of the Russian Chemical Society (1885, vii. and viii.) The following conclusions of his inquiry are worthy of being noticed:—The capacity of solid bodies for condensing gases on their surfaces is generally recognised, but their capacity of dissociating them under certain conditions must also be recognised now as a property of all solid bodies, although shared in by them in different degrees. Platinum enjoys this property to a high degree, but also many other solid bodies, glass among them, the intensity of its contact action obviously depending upon several circumstances: its chemical composition, the structure of its surface, and its temperature, as also upon the density of the gas it is brought in contact with. It being so, it appears possible, in the author's opinion, that in the dissociation phenomena studied by Sainte-Claire Deville (and having so great an importance for the theoretical discussions upon the dynamics of chemical reactions), the dissociation observed was a consequence of the contact action of